LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNA."

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EDITORS.

THE findings of the court-martial, which so many years ago dismissed Dr. Wm. A. Hammond from his position as Surgeon-general of the United States Army, have been reversed, and Dr. Hammond is restored to his rank, being placed on the retired list. The history of this whole affair will form one of the most curious chapters in the annals of medicine; and not the least curious fact connected with it will be that Dr. Hammond, after what might have been supposed to be a crushing blow, set himself manfully to work, and rose steadily as an author and practitioner to a position seldom before occupied by any member of the profession. He is credited with having made as much as sixty thousand dollars in one year at his profession.

DR. L. P. YANDELL will turn his face homeward on the 20th of this month, expecting to arrive in Louisville during the early part of October. Our readers will be gratified to know that Dr. Yandell has while abroad kept steadily in view the interests of the NEWS. Besides a number of first-class original articles, he has secured correspondence from one of the first writers of Great Britain, to be sent to us regularly from London. Dr. Y. at last accounts was in Paris, where also he will make arrangements for regular letters.

AT St. Louis a new medical college—the "College of Physicians and Surgeons"—starts this fall on the basis of preliminary examinations and high scholarship.

THE year 1879 will be noted as the one in which the "Pinafore" idiocy struck the country. New York laughed because London was supposed to laugh (in fact it only smiled at what was a local hit), and the provinces roar because New York laughs. The "opera" did not deserve to last a fortnight, but the mightiness of advertisement drives it a twelvemonth, and still the misery does not abate. The impending calamity of another "season" induces even a medical journal to take the matter up, although it might well have discussed it under the head of epidemic dementia.

THE indications are that there will be a large crop of medical students for the session of 1879–80. The Cincinnati Lancet and Clinic mentions the fact that in spite of advance in fees the classes in Cincinnati so far do not fall in number below the extraordinary count of last year. In Louisville the preliminary term in the several schools opens more successfully than ever.

DR. SAMUEL A. FINLEY, ex-Surgeon General of the U. S. Army, died this week at his residence in Philadelphia, aged eighty-two.

ONE can not be too particular with his directions. A messenger came to B. saying that one of his lady patients was suffering horribly from a bug which had gotten into her ear. B. was engaged at the time, and could not go to the patient, but sent word to "pour some oil in her ear." In a short time back came the messenger to ask "which ear."

Correspondence.

LONDON LETTER.

My Dear News:

This day one month I shall embark on the Bothnia, the trusty Cunarder on which I came hither, for America; and I assure you that in this instance, as in many others in my experience, the greatest pleasure connected with my travel is that of getting home. To-morrow I go to Paris for a week or two, and then I shall return to London to finish some hospital work and to bid adieu to my many kind and delightful friends.

The Chilaren's Hospitals.—Each of the London hospitals has a separate ward and a daily dispensary for these little people, but besides this there are more than half a dozen hospitals exclusively for sick children. I have visited the chief hospitals and dispensaries where these unfortunates are brought, and have been afforded every facility by the attending and house physicians for seeing and studying the abundant material of this kind furnished by London's innumerable poor. The in-patients are chiefly surgical cases, and scrofula forms the chief source of their diseases. Of course there are catarrhal, diphtheritic, rheumatic, syphilitic, and malarial cases, and not a few due to inanition, but most of the in-patients are there for scrofula in one form and another. In the out-patients, as in America, the chief source of the acute cases is malaria and the chief source of the chronic cases is scrofula. In the out-patients there are many cases of syphilis, but I see far less infantile syphilis in London than I have seen in France and Germany. Scrofula is the scourge of England to-day. Once the plague was terrible here, and leprosy carried off thousands of English people; but drainage and increased and improved food have banished these diseases. Malarious affections, which in times past were as rife in Great Britain as they are now in the unhealthiest parts of America, are much diminished in abundance, and especially are lessened in virulence by the careful surface- and under-drainage that have been almost universally carried out. Smallpox, which a hundred years ago attacked every body, is now seldom seen. Scurvy, which carried off its thousands of victims annually till Captain Cook discovered the anti-scorbutic property of fresh vegetables, is now almost unknown; but scrofula was probably never more widespread than at present. Its source, or at least one of its chief sources, is patent to the most careless observer. The English do not get enough fat, enough oleaginous food. This is partly due to the scarcity and costliness of butter, etc., but it is largely due to the popular prejudice against "greasy food," and I am sorry to say this false prejudice is largely shared by the medical men. The profession and the people of the British Isles have yet to learn that fat, oil in some form, or fat-making materials, are just as necessary to human health as oil is to machinery. But, sad to say, not only do the people not get enough fats, but thousands upon thousands get almost no meat, and not a few are even without bread enough to keep down the gnawings of hunger. The other day an old laborer, seventy-six years old, who had been without work for two weeks, and almost famished for food, cut his throat with a razor. He was discovered dying, and in reply to the inquiry why he did the deed he said, "Because I can get no work, and I have no home, no food, no friends, nowhere to go." The sapient coroner's jury brought in a verdict of "suicide while temporarily insane." Not only the aged, but the people of middle life and the young lack and suffer hunger in London; and hunger breeds disease.

By the way, have you noticed in the journals the statement that alcohol, malaria, and starvation all lead to fatty degeneration, as shown by post-mortem investigation? Last year, in one of the English dependencies in India, half the population of natives starved to death, and the English surgeons had a splendid field for post-mortem studies.

One word more about oleaginous food. At the very best English dinners not only is there no butter upon the table, but the vegetables are cooked in plain water, and not a drop of drawn butter is served upon them. Except a bit of fat that you may get with your meat and the oil on the salad, your food is clean of all grease. This is very bad, and Sir Henry Thompson, in two essays upon dining published in the Nineteenth Century, mildly calls attention to the evil.

English Drugs.—In nothing is London worse off or more behind the times than in her pharmaceutical preparations. The other day I wanted some citrate-of-iron and quinia pills, and I was told at one of London's chief retail establishments that pills could not be made of cit. fer. et quinia, or rather that no way could be devised of preventing their running together. Finding argument and instruction useless, I suggested capsules. Posi-

tively I do not believe the people of the shop had ever seen a capsule. At any rate they were utterly ignorant of them, and declared they are never used over here. Having no fancy for a solution of ferri et quinia cit., which I was assured was the only proper way to take the medicine, I asked for dialysed iron, and the article presented was simply shameful. In color it was correct, but it had not one other physical property of dialysed iron. Instead of being bland and smooth to the taste, it was rough and astringent; and instead of being neutral, it was excessively acid and put the teeth on edge. I asked for Wyeth's dialysed iron, which is always perfect, but they had none. At several places—all in the West End, the fashionable and rich part of London—I have tried the dialysed iron, and without an exception it is vile and abominable. True dialysed iron has little more taste than blood; slightly diluted it tastes quite like blood. I am sorry to say that so far as my travels have extended, in America and in Europe, I have found genuine dialysed iron the very rarest of medicines. Pure it is one of the best ferruginous preparations yet discovered. As it is commonly found in the shops it is nasty and without merit.

The Mortality of London.—No more interesting and important matter has come under my observation during my sojourn abroad than the extraordinary health of London during the past six months. I have on two previous occasions alluded to this subject, but it can not be too much written about. This summer was cold and rainy, and the death-rate was 17.7 per thousand. Last summer was hot and not very wet, and the mortality was 24.9 per thousand. In the corresponding six months of last year 10,250 deaths occurred. This year only 7,357 died. Of the lives thus saved 2,628 were children under five years of age. Can any one who loves children—and does any one not love them, especially if he has children?—fail to ponder over this striking statement? These figures are published in the medical and popular journals. Since July death has been more busy. Why? Because there have been more sun and heat and less rain. The six months preceding July were the wettest and coldest six months since 1860. July was hotter than May and June, during which months the mean temperature was 56° and a trifle over. In July the mean temperature was 58°. For the production of the malarial poison 59.6° is necessary. Diarrhea is the chief source of mortality in England, as it is in America, among young children. During last July 230 fatal cases of infantile diarrhea occurred; during the hot July of 1878 there were 1,976 innocents carried off by diarrhea. Malaria is far the most abundant cause of bowel trouble, and quinia is the great remedy for these affections.

L. P. YANDELL.

SAVILE CLUB, LONDON, August 20, 1879.

CASE OF EXTIRPATION OF TESTICLE.

To the Editors of the Louisville Medical News:

I was residing in the town of West Point during the building of the E. & P. R. R., and, as is usual upon public works, a great many accidents occurred. The following case, although not strictly an accident, yet may be considered of sufficient interest to justify its relation.

On March 18, 1874, I was called in consultation with my friend Dr. J. W. Fletcher, of West Point (now of Elizabethtown, Ky.), to see Pat. S., an employe of the Baltimore Bridge Company, who had upon a wager jumped from the top of the iron bridge across Salt River, a height of ninety-five feet, into the water. On examination we found the left testicle entirely out of the scrotum, hanging by the cord at least five inches in length. No circulation could be detected in it whatever. We at once decided that the testicle could not be saved, but that it would have to be removed. Ether was administered by the writer, and Dr. F. removed the injured testicle. The vessels were properly ligated, the scrotum brought together with silk thread, a dose of morphia given, and cold cloths ordered to be applied continuously to the parts. There was slight concussion of the brain, also a slight injury of the penis. I visited him for a few days with Dr. F. He continued to improve, and in one month was up and well enough to go to work.

J. T. DAVIS, M. D.

FISHERVILLE, JEFFERSON CO., KY. Sept. 4, 1879.

REMEDY FOR BURNS.—The latest addition to the numerous reputed remedies for burns is powdered charcoal.

ORRIN GOTHAM, of Epping, N. H., ate thirty-six peaches upon a wager, and they killed him.

Reviews.

The Yellow-fever Germ on Coast and Inland: A Discussion on Ship and Railroad Quarantine before the Medical Association of Georgia, Rome, April 18, 1879. By HENRY FRASER CAMPBELL, M. D., Augusta, Ga., chairman of Committee on Endemic, Epidemic, and Contagious Diseases, in the Board of Health of the State of Georgia.

I do earnestly wish that in the jostling race after new things, in which men are liable to get their heads confused, there were more attention paid to what is run after. Two thousand years have rolled away their circling movements since the sage of Cos recorded his medical observations, and many of them are as exactly true now as they were when he uttered them. How they rise before us in primeval beauty, as we remember that richest of tributes which Dr. Oliver Wendell Holmes paid to Hippocrates in describing the master architects of the Temple of Medical Science:

"See where aloft its hoary forehead rears
The towering pride of twice a thousand years!
Far, far below the vast incumbent pile
Sleeps the gray rock from art's Egean isle;
Its massive courses, circling as they rise,
Swell from the waves to mingle with the skies."

Now one of the great truths that rose from "art's Ægean isie," uttered by Hippocrates, is this: "Medicine has of old both a principle and a discovered track, whereby in a long time many and fine discoveries have been made, and other discoveries will be made, if any one who is competent and knows what has been discovered *start from these data on the search.* But whoever, rejecting these and despising all, shall undertake to search by a different track and in a different manner, and shall say that he has discovered something, shall be deceived himself and shall deceive others." Let us be wary in deserting "the data" that observation sanctions and consecrates for the search for truth. If, when Hippocrates was called to Abydos to arrest a devastating sickness that scourged one side of that city, he had sent his thoughts to wandering through the air in search of "germs," the world would have lost a great and invaluable truth, and Abydos would have derived no benefit from his labors. But, living within what his observations had taught him, he disarmed Abydos of its annual pestilence and gave it perpetual immunity from the scourge. Shall these lessons fall upon stony soil and yield us nothing for our labors?

I now purpose to give critical attention to some of the points which I merely quoted from Prof. Campbell's paper on the Yellow-fever Germ. He places the "yellow-fever germ" in the same category as a hypothesis, with "other forms of atmospheric poison, malaria, etc." On page 9 of his paper he says: "When I speak, then, of a specific imported germ I profess no more and no less accuracy of statement than those do who speak of 'malaria' and of the 'foul airs' by which they account for the local origin of yellow fever and of intermittent fever. The very term they use to designate these latter fevers refers to a cause as hypothetical as the 'germ.'" Here, then, I join issue with Professor Campbell. He takes an unknown thing, of which no human being knows any thing whatever, and undertakes to bolster this nonentity by comparing it with one of the most immortal truths known to medical science, a truth upon which has been expended many of the profoundest labors of the tallest minds that have adorned medical science. In order to strengthen the nondescript "yellow-fever germ" he weakens malaria by calling them both hypotheses. One of them is the growth of ages, the other a bantling comparatively of a few hours. One of them is so intimately, so clearly known in its laws that under those laws mighty revolutions have been made in the health, prosperity, and thrift of vast regions of the earth; the other has never yet protected nor saved the life of one human being. We can as indubitably call caloric, electricity, light, oxygen, and the contagion of smallpox hypotheses as we can call malaria a hypothesis. We know each one of them by their effects, and by them alone. We know the laws of their habitudes, and we know the habitudes of each one of them as well as we know any thing in nature's widespread and overarching domain. We take up the positive gains of our knowledge upon the subject of malaria.

1. There is required a daily mean of sixty degrees of Fahrenheit's scale for two months, with decomposing vegetable material and moisture, to make that form of malaria that produces intermittent and remittent fevers. This is a positively-ascertained truth. If the solar heat is persistent, or rises higher than the daily mean of sixty degrees, the diseases assume graver aspects than those forms that are easily managed. In these circumstances the attacks may increase in severity and become very fatal. In the mildest forms of the diseases caused by this poison the urinary organs always show indubitable evidences of

the poison. This is universal. In any case of intermittent or remittent fever there is a large increase of uric acid; and by this alone we may, in the most obscure case, decipher the presence of the poison produced in the way I have mentioned. Again: two persons may occupy the same room; may both be attacked about eleven o'clock. One of the two suffers severely until the sweating stage, and the paroxysm ends. The other seems to be insensible to any suffering; he has no reaction; he talks sensibly; but he has a total suppression of urine, and is pulseless. He is collapsed, and will inevitably die. These are not unusual occurrences. In one case we have, as the direct effect of this poison, an intoxication, with perversions of the urinary organs; in the other there is a perfect paralysis manifested in the urinary organs, in the secretions, and in the circulation. Professor Campbell will understand me when I say that in this latter case the floor of the fourth ventricle of the brain bears the onus of this force. In all human records not a single recovery from this condition has ever occurred, nor has any case of the kind ever taken place, except as the result of this poison called malaria.

2. The decompositions are exclusively of vegetable material. The putrefaction of animal matter has nothing to do in the production of this poison. This is a well-known truth that can not be successfully called in question.

3. The air thus formed has another habitude that belongs to itself alone—the law of latency. If the attack is in the form of a daily paroxysm the person may in nearly all cases seem to be well until the time for the next paroxysm. If it be the third-day variety in the intermediate time between the paroxysms the patient is well, but the poison is latent; it will manifest itself at the proper time. After the paroxysms are broken they may go to a region where no such diseases are known—and there are many such places—and on the seventh, fourteenth, twenty-first day, or some other multiple of seven, the paroxysms will be renewed. This is due to the law of latency. Two persons may leave Massachusetts, go out to Illinois in the summer or fall, return home; one of them is taken down with chills and fevers in a part of the country where such diseases are unknown. The companion in the journey nurses the case day and night until the physician begins to suspect the character of the complaint and relieves it by the proper remedy. The companion in the Illinois trip, without leaving the Massachusetts region after the recovery of his friend, remains in good health for twelve months, when he is attacked with chills and fevers. He acquired the cause of his disease when his friend acquired it, but in his case he carried it in a latent form for twelve months before it exploded into an active form. This is as true of yellow fever and cholera as of intermittent fever, as I shall show hereafter. I mention these truths now in order to show the habitudes of this poison. In all regions subject to these diseases, the observations have been often made that after frosts prevent new attacks, some of the dwellers in the locality continue to have paroxysms through the fall and winter months, and that while immigrants into the region escape, the inhabitants continue to be attacked. This is under the law of latency; for it is notorious that the newcomers would be very subject to attacks if the cause were in existence, and to very severe grades of these diseases. Their escape, therefore, while those who were living there before this period are attacked, is a conclusive proof, a demonstration of this law of latency. I am merely giving the habitudes of this poison; when the occasion demands them I can supply plentiful proof upon all these points.

4. This poison, as a general rule, can not rise in any power over forty feet perpendicular. The Moskwa River runs along the base of the Kremlin. All along the banks of the Moskwa, in other parts of the city, the people are subject to annual visitations of intermittent fever. Moscow has occasionally been subject to oriental plague and to cholera of a devastating character. No case of intermittent fever, oriental plague, nor of cholera has ever been seen within the Kremlin, large and populous as it is. Why? A wall sixty feet in height surrounds the Kremlin. The cause of these diseases has never climbed over the wall of the Kremlin. The great Hennen, in his Medical Topography of the Mediterranean, who had a vast experience in oriental plague, and was a contagionist of the most approved type, makes the statement that plague does not climb up stairs.

5. This cause of disease which I am considering can not cross water. Thousands of facts bear testimony to this truth. When the British army was nearly destroyed on the islands of Walcheren and Beveland, the sailors in the ships remote from the shores of the islands were perfectly exempt. All the officers who had lodgings in the upper

stories of houses were entirely free from the diseases engendered on the ground.

6. A screen of vegetation between the source of the poison and the lodging-places of the people is a perfect protection against the action of this morbific agent. An immense number of truths have been observed on this point, which I can readily furnish when the fact is disputed.

7. This cause is innocuous during the day. It begins its mission at sunset or soon after. Under the observation of the most renowned members of the medical profession at least ninety-five of every one hundred cases of yellow fever begin in the night. Some of the greatest lights in the medical profession declare, as the result of their experience, that no amount of exposure in the worst locality of yellow fever during the day is attended with the least danger, while those who attempt to spend a single night in it asleep are sure to be the victims.

I have named these attributes of malaria because they belong to that poison and to nothing else. It received this name from the illustrious Lancisi, and a very appropriate name it is. If this potential force is entitled to an opprobrious nickname—a hypothesis—I should be pleased to be informed what is there in all our knowledge that is not a hypothesis? Even the mastication of a piece of bread, and the washing of it down with a glass of milk, may as justly be called a hypothesis. In all our matters of knowledge it is singular how little we know of the ultimate essence of any thing. For example, we take upon the point of a lancet an infinitesimal particle called vaccine matter and insert it beneath the skin, and we produce with it the most perfect form of the disease called smallpox. Wherein the power resides in that particle we do not know, but we know that we succeed through contagion. Is this hypothesis, or is it positive knowledge? Or if it is not knowledge, then I ask, What is it that we know? Nearly seventy-three years ago, with a thread from Jenner's own hands, this operation was performed on me, and it has vindicated the truth of Jenner's knowledge by giving me immunity from any other smallpox through many hundred times of exposure to the disease. We have never detected yet what it is that gives this vaccine lymph this peculiar power. But we know how the article is made, and its action is uniform; hence our knowledge, hence our confidence. We have never seen malaria; it has no odor, nor color, nor any thing that addresses our senses. But we know when and where to look for it; we know how to guard against its action; we know its effects and the manner of their appearance. We are fully acquainted with the laws of its being, and we are so intimate with these laws that we can exercise great control over the evils incident to the poison. There is nothing in all the etiology of disease with which we are as well acquainted as we are with malaria. All the successive ages of medical observation have contributed to the building of this stately edifice. The knowledge respecting the materials of this fair fabric has revolutionized extensive territories in many parts of the world; has given health, thrift, and prosperity where previously there were sickness, decay, and impoverishment; and it will continue to cover the earth with its manifold blessings. And are we to turn our backs upon the magnificent glories of our profession and fly to those

> "Who have fed
> Perhaps too much upon the lotus-fruits
> Imagination yields—fruits that unfit
> The palate for the more substantial food
> Of our own land—reality."

Hence I have endeavored to show that malaria, instead of being a mere supposition, a hypothesis, a mesh of guess-work, is a substance that deserves and rewards our utmost study; that it is any thing else than an ignis fatuus—

> "As far from help as limbo is from bliss."

In my next I shall carefully examine what Professor Campbell calls "the entire complement of antiseptic surgery, with its reliable results and brilliant achievements, depending upon this rational assumption, and upon the devising of methods for preventing germ ingress and for securing germ destruction." We shall endeavor to discover, from the voice of surgeons, what is the amount of "corroboration given to the 'germ-theory' of yellow fever." If we find that in this field it receives "a remarkable corroboration," we may fairly measure its merits. A mushroom stalk can scarcely support the sturdy trunk and far-extending limbs of the oak tree. But examination may determine this question.

T. S. BELL, M. D.

LOUISVILLE.

Contributions to the Biology of the Bacteria. By LOUIS WALDSTEIN, M. D., New York. From the Pathological Laboratory of the University of Heidelberg (Vienna).

This pamphlet contains a list of well-recorded investigations, the conclusions of which are briefly:

1. Prolonged boiling destroys only the developed bacteria, but does not materially injure the younger germs. The supposed "abiogenesis" of certain authors is thus explained.

2. Nitrogen, from whatever source, is the chief food of these organisms.

3. The only practical way known to him of destroying these organisms is by making such chemical combinations in the infected fluid as will deprive them of the power of absorbing nitrogen. O.

Miscellany.

MARRIAGE PROBABILITIES.—The Chicago Times has constructed a table of marriage probabilities for both sexes, from the age of fifteen up to seventy, based on figures taken from eight thousand marriage licenses issued by the county clerk during the twelve months ending August 2d. It deduces the following facts from the table:

In one thousand cases no one was married before the age of fifteen. The marriage of women at that age is not unknown, but it is rare. Men do not begin to marry, as a rule, until they are eighteen years old. At the age of nineteen, when young men are just beginning to think seriously of the subject, young women are at their most favorable time, more of them marrying at that age than at any other. The years of greatest probability with a woman are from eighteen to twenty-five, culminating at twenty-two. At nineteen, twenty, and twenty-one the chances are even, being better at nineteen and twenty-two than at either of the intervening years. At twenty-three begins a steady decline, but not until the age of thirty-three do the chances fall below one in a hundred; after that age they do, and in the rest of her life her chances are but seventy-six in a thousand. At the age of fifty-three the vanishing point appears in sight, no marriages occurring at that age and at the age of fifty-four. At fifty-five and fifty-six occurs one marriage each; at fifty-seven none; at fifty-eight one; and after that a woman has literally not one chance in a thousand of wedding. Her best years are four in number, being from nineteen to twenty-two inclusive. With a man it is different. His best years are ten in number, from twenty-one to thirty inclusive. It is at the age of twenty-one that he evidently turns his attention wifeward, and it may be that legislators were entirely right in fixing that as the year when he shall attain his majority. In no year of his life are the chances one to ten that he will marry. His very best years are at twenty-three and twenty-five, as a girl's are at nineteen and twenty-two. From twenty-one there is a pretty steady increase till he is twenty-five, and then his chances slowly decline, although they do not drop suddenly until he is thirty. It is worthy of note that the sudden drop in the chances of both men and women occurs the years after they become "old bachelors" or "old maids." Men do not begin to marry until about three years later than women, but they keep it up more or less steadily five years later. With men the chances do not fall below one in one hundred until the age of forty is reached. Then it is one in fifty, and after that but one in two hundred. Marriages occur, however, every year until fifty-six is reached; then on alternate years to sixty-two; and after that comes but one, which is at the age of seventy.

Of the one thousand women in this list eighty-four were widows, and of these eighty-four fourteen had been divorced. Of the fourteen one remarried the man from whom she had been divorced. Of the men but three had been divorced. How many were widowers there are no means of telling.

Of the one thousand marriages one hundred and eighty-seven were between parties living in the same house. Whenever a man marries under such circumstances it is natural to suppose that when he fell in love with the girl it was the result of pure accident. He was not probably looking over his list of lady acquaintances for a wife, and his selection was probably not the result of pure choice—of the opinion that she was the best of all the women he knew to make a wife. The two happened to be thrown in close contact, the fire of youth was ignited, and it blazed up, and they were married. This figure can not, however, be taken as in any degree correct to show the number of chance-marriages. Perhaps nine tenths of all the marriages are chance. But the chances are very strong that these were all chance, pure chance, and nothing but chance.

The census of 1870 gives the total male population of the country at 17,029,088, and the total female at 16,560,289. From these figures is deducted the fact that a woman's chances of marriage, were there no disturbing causes, are one thousand and twenty-nine to one thousand. The number of men being greater than the number of women,

every woman ought to find a husband; but the disturbing causes which induce men to forego marriage, such as the inability, as they suppose, to support a wife, a preference to remain unmarried, and so on, throw the chances, as a matter of fact, the other way.

For the twelve months ending July 31st just past the total number of marriages in this city was five thousand one hundred and fifty-nine. The favorite month in which to marry is November; the next are May, October, and March, which appear to be equally desirable; December is nearly as much so; next are February, April, and June; while January and September come behind these, and the least popular of all is the month of August.

DUELS OF GERMAN STUDENTS. — These seem to be more frequent than ever, and the authorities are trying all they can to put them down. They are not able to prohibit them, for there is no law by means of which they could interdict students from hacking and scarring their faces, such mutilations being quite voluntary. They confine themselves to endeavoring to render these encounters less easy, by diminishing the number of localities where it had been customary to allow them to take place. Thus the authorities of Leipzig have just issued to the keepers of hotels and taverns, over which they have control, a formal prohibition to allow duels to be fought by students on their premises under a penalty of one hundred and fifty shillings; and the police are ordered to see that this edict is strictly executed.—*Union Médical.*

Come to the mortal as he sits
  Upon a dry-goods box and sips
  The nectar from thy juicy lips;
Come to the youngster as he flits
  Across the high and peaked fence,
  And moves with ecstacy intense
    Thy charms from off the native vine,
And thou art terrible!
  O August-born monstrosity!
  Incarnate colicosity!
Beneath thy emerald bosom glow,
    Like glittering bubbles in the wine,
The lurid fires of deadly woe;
And from thy fascinations grow
The pain, the cramp, the pang, the throe—
And all we fear or dream or know
    Of agony is thine!

P. S. We mean the watermelon.

A LADY subscriber quits the Boston Journal of Chemistry because in five years she has not recognized the name of an acquaintance in its obituary notices.

Selections.

ACUTE INFECTIOUS DISEASE.

A Clinical Lecture delivered at the Good Samaritan Hospital, Cincinnati, by James T. Whittaker, M. D., Professor of Theory and Practice of Medicine, Medical College of Ohio; Lecturer on Clinical Medicine at the Good Samaritan Hospital. From the Medical News and Library:

When we last met we had before us a typical case of typhoid fever in the height of the disease. We saw displayed, one by one, the signs which characterize the affection, and which, in group, put on any case of it the stamp of individuality. We have next to discuss the most interesting question connected with its history—viz. its cause. No knowledge satisfies short of the cause; for, as Bacon has said, "*Vere scire est per causas scire.*"

Points in Common.—When we come to study the cause of typhoid fever we confront at once the cause of all acute infectious diseases, of which this malady preëminently is one. While each one of these diseases has individual points of difference, they have all many more points in common, both as regards the symptoms they induce and the lesions they present. If we look, for instance, at yellow fever, the prevalence of which at the present time intensifies our interest in this subject—a disease which would seem, on account of its localization, to stand apart from the the rest—we discover nothing especially secret and peculiar, nothing which might confer on those most familiar with it especial skill in its management or relief; for the initial chill (when present), the intense frontal and lumbar pain, the fever, and gastric disturbance belong to all the exanthematous diseases. Albuminuria occurs in every high fever which markedly lowers capillary tone. Vomiting of disorganized blood—the ominous black vomit—is a characteristic also of typhus and bad cases of typhoid fevers, hemorrhagic smallpox, and malarial remittents. The distinct and deceptive remission of all the symptoms, the pathognomonic bronzed or mahogany coloration of the skin and mucous membranes alike distinguish icterus gravis, some varieties of septicemia, and chronic malarial poisoning.

Moreover, yellow fever has no discoverable pathological lesion absolutely peculiar to itself. The hematogenous icterus and ecchymosis of the skin; the hemorrhagic erosions of the stomach, with its bloody contents; the anemic, mostly acutely fatty liver; the hyperemic and blocked-up kidneys, with, in *foudroyante* and protracted cases, the nearly or quite empty bladder; the granular and fatty degeneration of the muscles; the general catarrh of the mucosæ every where—what are all these conditions but signs common to every acute toxicemia?

The State of Knowledge concerning Infectious Disease.—We can not therefore study intelligently the etiology of any one of these diseases without a preliminary survey of the entire field.

I do not need to say to you that no subject in medicine is more worthy of our time. The occurrence of an epidemic of acute infectious disease strikes terror as no other calamity or casualty of nature, for the simple reason that no one is so universal or widespread in its reach. Those of us who have been eyewitnesses of the devastations of cholera and yellow fever need no reference to the epidemics of the middle ages for full appreciation of the horrors of a plague.

Even as we now speak there threatens to be left of one of the most populous cities of our valley, now nearly deserted of its inhabitants, what was left of its namesake of old, merely "a tomb and a shadowy name."

A vast number of facts have been accumulated about these mysterious infectious diseases, many errors have been corrected, many suspicions dispelled or confirmed, until we can almost say that we possess as much definite information regarding the cause of acute infectious disease as regarding the ultimate essence of any other natural phenomena.

This class of diseases, a specimen of one of which has so lately occupied our attention, is especially characterized by more or less rapid dissemination, by intensity or virulence of manifestation, and by comparative shortness of duration. With these characteristics this class of diseases is appropriately grouped under the title of the Acute Infectious Diseases.

The course and conduct of these diseases in the body resemble to some extent the action of poisons; hence they are often called blood-poisoning or septic diseases.

The poison, whatever its nature, once introduced, in however small quantity, into the blood, so swiftly induces manifestations of disease in the whole body as to resemble the action of a yeast or ferment, a little of which "leaveneth the whole lump;" and hence these diseases are also called zymotic diseases.

Finally, because these diseases, under the unfavorable hygienic conditions which still surround us, are able to spread over whole sections of country, over whole countries—indeed, unless checked by natural causes, over the whole globe—they constitute what are known every where as the Epidemic or Pandemic Diseases.

Types of Infectious Diseases.—Types of these diseases are Asiatic cholera, smallpox, chicken-pox, measles, scarlet fever, typhus and typhoid fevers, yellow fever, and diphtheria. In the very forefront of the acute infectious diseases stands, or stood—for our improved sanitary conditions, faulty as they still are, have prevented its spread in modern times—that most terrible of all scourges to man—the plague. At the extreme opposite end of the list we may read mumps, hooping-cough, and influenza (a marked sample of which, the "epizootic" of 1873, confined nearly every horse of this country to his stall for several days); and along the column at different places erysipelas, child-bed fever, and dysentery when epidemic—as in ships, hospitals, and camps—pyemia and septicemia, with vaccinia, hydrophobia, malignant pustule, etc., as poisons communicated from the lower animals to man, and the cattle-plague as a typical example of this class of affections in the lower animals themselves.

The characteristic feature of all these diseases is infection. It matters not that they are not all propagated by immediate, direct, or personal contact. In some diseases the infectious element is fixed close to the body, as in cow-pox and syphilis. These are diseases never propagated by the air, though great stress was put upon the telluric origin of syphilis by a priest who wrote one of the earliest accounts of the disease as it manifested itself in his own person. In other diseases—smallpox, measles, scarlet fever—the poison is eminently volatile, and is thus disseminated by the air. In still other cases, as typhoid fever, dysentery, and cholera, it is the dejections which chiefly convey the contagium to finally infect the soil, and through the soil or sewage canals by filtration, to even great distance, the drinking-waters of our wells and cisterns and running streams. To breathe infected air or drink infected water quite distant from the focus of infection suffices to engender cholera, dysentery, or typhoid fever; while the contagion of syphilis and probably diphtheria must be lodged upon the mucous membranes; and vaccinia, hydrophobia, malignant pustule, the virus from venomous animals, to produce infection, must be inoculated into the very blood itself.

The mode of infection has thus been pretty accurately determined for each of the acute infectious diseases.

Infectious Diseases Specific.—Another fact of equal value is the recognition of the specificity of these diseases. Each one of these diseases is known to reproduce itself alone. Measles begets measles, smallpox begets smallpox, cholera begets cholera. Figs would be born of thorns or grapes of thistles as soon as cholera of smallpox or diphtheria of typhoid fever. The introduction into the blood of the specific cause begets the specific disease.

From this law has been deduced still another fact inestimable in its value; and that is that the spontaneous generation of any one of these diseases is impossible and unknown. Nowhere now is there any question of autochthonous genesis of infectious disease. Every where is recognized a house where the disease is indigenous, and a route along which it is spread. The mouths of the Ganges and the Brahmaputra are the centers of cholera, lower Egypt of the plague, the Antilles of yellow fever, Ireland of typhus. So far as these diseases are concerned, whose course can be most distinctly traced—cholera and yellow fever, for instance—the line of infection when accurately pursued is always found to correspond with the line of transportation by water or rail. The increased velocity of travel in our day, with the correspondingly increased swiftness of the transportation of disease, forms the embarrassing element in tracing the course of the disease to its original seat. A week and two days may now suffice to introduce from Europe to our whole country a sweeping epidemic of cholera, and under favoring conditions but a few days are required to carry yellow fever from New Orleans to New York. Thus the advanced knowledge of sanitary science in our day, to which we may chiefly ascribe our comparative exemption from the devastating epidemics of ancient times, is counteracted to some extent by the increased facilities for transportation of disease to new centers, the absence of which alone saved the human race in the middle ages from almost utter extinction.

Smallpox first showed itself in Germany in 1493, an importation from the Netherlands; but it was not till 1527 that it was transported to our country, making its first appearance in Mexico, slaughtering myriads, and then gradually extending over the whole of North America. Scarlet fever, which was first seen in our country in 1735, reached Iceland in 1827, South America in 1829, Greenland in 1847, and Australia in 1848. Measles has not yet been carried to Australia. Cerebro-spinal meningitis, in every respect the most irregular of all epidemic diseases, first fell on our country in 1806. The ocean was for all time an impassable barrier to cholera, the most widespread and fatal of all the acute infectious diseases, until it was directly conveyed across in the memorable year of 1832.

The last case of measles in the Faroe Islands occurred in 1781. The disease then died out and was

almost forgotten, when, in 1846, an individual sick with it came ashore. The inhabitants at that time numbered 7,782. Of these over six thousand fell sick with the measles, and the fifteen hundred that escaped owed their safety to rigid quarantine. On the affected islands the attack was nearly universal, only the very aged, who had suffered with the disease during and previous to 1781, were spared.

No point in prophylaxis could be of greater value than the recognition of the exclusively parental birth of acute infectious disease.

Periods of Incubation.—The close observation of a long series of years has already put us in possession, moreover, of most of the data in the natural history of each of these diseases. Thus we have learned first that manifest attack does not follow immediately on exposure to the disease. There lapses first a period during which the disease lies latent in the body, hatching as it were, the so-called period of incubation. In some cases the length of this period may be determined to a day by the experiment of inoculation. Thus the incubation period of vaccinia is three days; of smallpox after inoculation two days, without inoculation twelve to thirteen days; of scarlet fever four to seven days; of typhus seven to fourteen days; of typhoid fever twelve to sixteen days; of measles ten days; of intermittent fever, one to fourteen days; of syphilis two to four weeks; of the plague two to seven days; of cholera two to three days; of yellow fever two to nine days; of hydrophobia three to sixty days.

Then supervene the various stages characteristic of each disease; each stage, of more or less definite duration, marking off a definite phase in the course of each disease. We know, again, what are the infecting structures, what is the period of greatest infection, and what is the duration of infection for each disease.

They come from a Germ.—Lastly, the proof accumulates day by day that all or nearly all the acute infectious diseases are caused by microscopic or ultra-microscopic parasites endowed with marvelous powers of reproduction. "From a single germ of the saccharomyces cerevisiæ, the well-known alcoholic ferment, one hundred tons of yeast, containing possibly fifty milliards cells, have been generated in a single day in some of our largest breweries." A single drop of fluid containing the bacteria of *milz brand* introduced into the blood of the largest ox multiplies its poison to such almost incredible degree as to kill the animal in from twenty-four to thirty-six hours. In this disease, in relapsing fever, charbon, and septicemia the kind and conduct of infecting parasites have been as clearly demonstrated and described as in scabies and trichinosis.

But these parasites or germs do not always multiply in the blood or in the body; hence not all acute infectious diseases are contagious. Smallpox gives off its contagion from its eruption in greatest virulence just before the vesicle becomes a pustule, in the exhalations from the skin, and in the blood, from which even the placenta does not filter it off. In measles the disease may be inoculated with the blood, the tears, and the sputum. Scarlet-fever infection is in the exhalations from the skin and lungs, and that of typhus irradiates in every direction from every surface and secretion. These are eminently the contagious diseases. In the case of others, yellow fever, malarial fevers, the poison is in not in any sense entogenous, the germs productive of the disease do not multiply in the blood nor migrate from it to others about the affected individual. Local colonization, universal dissemination marks the history of the purely contagious diseases; colonization and chemical change characterize those which remain simply infectious.

Gentlemen, we have no time to speak now of the easy solution of all the problems offered by the germ genesis of the acute infectious disease. I shall simply call your attention to an explanation it permits of the so-called sporadic cases of disease where the closest search has failed to reveal a primal cause. I venture it only as a possible explanation, because fortunately most of the poisons of disease are known to hug the ground, to be dissolved in the subsoil water, or at most to creep (when not carried) at almost snail's pace along the surface of the earth; but an ascending column of air laden with the poison might be wafted off to very distant seats. That this offered explanation is no mere conception of fancy is shown by the abundant records of the fall of dust, mostly infusoria, on vessels far out (one thousand to sixteen hundred miles) at sea. Such clouds of dust have even compelled vessels to put ashore. Mr. Darwin, in his Voyage, says: "In some dust which was collected on a vessel three hundred miles from the land I was much surprised to find particles of stone above the thousandth of an inch square mixed with finer matter," and adds, "After this fact one need not be surprised at the diffusion of the far lighter and smaller sporules of cryptogamic plants."

Need we be surprised at the occasional occurrence of a sporadic case at the distant dissemination of acute infectious disease dependent on germs, when a single bacterium weighs only 0.000000000157, not the millionth part, of a milligram?

The recognition of the fact that these diseases are never spontaneous in development, but that their germs are always somewhere in lurk, would protect us in a great measure from invasion, or if invaded, would restrict their dissemination to the narrowest possible limits. Pure water, pure air, and absolute cleanliness, disinfection, rigid and relentless quarantine, and, in proper cases, isolation of the sick, then suggest themselves at once.

In accepting the germ-theory as the cause of infectious disease, we have at least a tangible material foe against which to shoot a lance. We are not simply fighting air, comets, or eclipses, or supernatural dragons. We are relieved at once in therapy from the dreadful nightmare of empiricism.

Our government has at last been awakened to the necessity of a national board of health, which gives promise already of much good. What is most needed at the present time is the appointment of scientific epidemiologists by the different states, *in loco morbi*, at salaries sufficient to relieve them from the time-consuming necessities of practice. A small fraction of the donations so benevolently contributed during the calamities entailed by epidemics would probably secure such disclosures concerning the cause, prevention, and cure of infectious disease as would effectually efface them. Whether these disclosures would be the discovery of antidotes, like quinia for malaria or mercury for syphilis, or preventives, like vaccinia for the smallpox; or conditions which mitigate the dangers, like refrigeration, charbon; it is impossible as yet to say. But it is perfectly safe with our present knowledge to predict the speedy extinction of many infectious diseases, the existence of which at the present time is a disgrace to medical science and a satire upon civilization.

STATISTICS OF EPITHELIOMA.

Dr. T. E. Satterthwaite, in New York Medical Journal, in Observations on One Hundred Cases of Carcinoma, gives the following statistics of thirty-seven cases of epithelioma:

Of the thirty-seven cases of epithelial carcinoma, all but one occurred when they were within reach of operative interference.

1. *Age.*—The largest number of these cases of epithelial carcinoma were observed first between the ages of fifty-eight and sixty-six, the average age at which it occurred being fifty-four years and eleven months, with a range from twenty-seven to seventy-two years. Mr. Paget says that the favoring period regularly increases with the advance of age, until seventy is reached. Winiwarter says: "Carcinomas of the skin begin the earliest. The greatest frequency of the skin-carcinoma is reached between forty-six and fifty. There is no cancer after eighty-five."

2. *Sex.*—Of the thirty-seven cases twenty-eight or 75.68 per cent occurred in males, nine or 24.32 per cent in females. It will be observed that these figures are the reverse of those presented in the scirrhous variety. Mr. Paget, speaking of epithelioma, says, "In one hundred and five cases affecting parts common to both sexes eighty-six were in men (81.90 per cent) and nineteen (18.09 per cent) in women."

3. *Condition.*—Of the thirty-seven cases twenty-eight or 75.68 per cent were married or had been, while four or 10.81 per cent were single; in the balance, five or 13.51 per cent, the histories were incomplete on this point. The influence of marriage can not be determined in epithelioma any more than in scirrhus, for similar reasons. Winiwarter also concludes that its influence is not certain.

4. *Locality.*—Of the thirty-seven cases in eleven or 29.73 per cent the growth was located on the lip, either on the upper or lower alone, or both, or at the angle of the mouth; in four or 10.81 per cent the growth was located on the tongue (above or below); in three or 8.11 per cent on the glans penis; in eight or 21.62 per cent on the nose, cheek, ear (external and internal, one each), and labia (two cases each); in eleven or 29.73 per cent the disease was located in the floor of the mouth, eyelid, edge of the hair, palate, rectum, larynx, neck, face, inferior maxilla, esophagus, and cornea (one case each). Of Winiwarter's five hundred and forty-eight cases 39.41 per cent were located in the skin.

5. *Assigned Cause, Traumatic or Constitutional.*—Of the thirty-seven cases in twelve or 32.43 per cent it was ascribed to smoking a pipe, for in all the cases but one the patient had been in the habit of resting the pipe-stem at the point where the disease first made its appearance. In eight or 21.62 per cent various traumatic causes were ascribed, such as chewing a toothpick, etc., so that in twenty or 54.05 per cent a previous traumatism was assigned. In thirteen or 35.14 per cent no cause whatever was given to it, while in four or 10.81 per cent the history did not state any thing in regard to this point. Mr. Paget, in his thirty-four cases of epithelial cancer, states that in nineteen or 55.88 per cent there had been an injury or previous morbid condition in the affected part. Winiwarter gives as causes: 1. Slight frostings of the face, as in people exposed in the country; 2. Slight and frequent injuries, such as cuts and scratches in shaving, excoriations of the lip by a pipe-stem, and burning by nicotine, nitrate of silver, etc.; 3. From lacerated or incised wounds, injuries to a cicatrix; 4. From a blow of which no apparent trace was left; 5. Permanent pressure, such as precedes bed-sores or callus; 6. Some pathological process such as erysipelas, frost-bite, opaline plaques; 7. Hypertrophy of papillary growths, warts, etc., or from cysts or burns; 8. From acute inflammation leaving a chronic infiltration; 9. From ulcerations of the skin.

6. *Family History.*—Of the thirty-seven cases in twenty-six or 70.27 per cent there was no family history of carcinoma; in five or 13.51 per cent there was a distinct family history of cancer; in six or 16.22 per cent the facts were deficient; in one or 2.70 per cent there was no history of carcinoma, but one of phthisis. In only five per cent of Mr. Paget's epithelial carcinomas was there a possible family history of carcinoma. Of these cases (sixteen) three only were epithelial (page 735).

7. *Pain.*—Of the thirty-seven cases in fifteen or 40.54 per cent there was very severe pain; in seven or 18.92 per cent there was a moderate amount or slight pain; in ten or 27.03 per cent there was absolutely no pain; in five or 13.51 per cent no information could be obtained on this point. Pain seems to be a very prominent symptom in this class of growth, and when it attacks the tongue the suffering is more intense than in the other localities. Mr. Richard Barwell (Lancet, April 19, 1879) suggests, for the relief of this pain, division of the gustatory nerve, which he has done when the whole organ was involved, though he has never done it when a portion only of the tongue was involved.

8. *Enlargement of Lymphatic Glands.*—Of the thirty-seven cases in eighteen or 48.65 per cent there was no affection of the lymphatic glands; in five or 13.51 per cent the lymphatic glands were found to be enlarged; in fourteen or 37.84 per cent no information could be gained on this point. Mr. Paget says that out of forty-two cases in the ordinary course of hospital and private practice, including many in the early as well as in the latest stages of the disease, he observed the lymphatic glands enlarge twenty times or 47.62 per cent. These figures have no great value, because it is well known that sooner or later the neoplasm will invade the lymphatic glands in the vicinity. Should none exist in the vicinity, the disease may progress to great length or even to a fatal issue with no involvement of glands.

9. *Treatment prior to Operation.*—Of the thirty-seven cases in many there had been local treatment before operation, the applications generally made being a saturated solution of the terchloride of antimony, which in almost all cases produced temporary relief, and in fact seemed to cause the disease to disappear. Some had taken arsenic internally.

10. *General Health previous to Carcinoma.*—Of the thirty-seven cases in twenty-eight or 75.68 per cent the previous health of the patient prior to the inception of the disease had always been good; in two or 5.41 per cent it was not known; in one or 2.70 per cent it had always been poor; in one or 2.70 per cent the patient had suffered from dyspepsia for a number of years; in one or 2.70 per cent the patient was suffering from hemiplegia; in one or 2.70 per cent he had the habit of eating opium, and also had hemorrhoids and stricture of the urethra; one or 2.70 per cent was addicted to the excessive use of alcohol; in two or 5.40 per cent there had been syphilis. Mr. Paget says, "The general health of patients with epithelial cancer is usually good till it is affected by the consequences of the local disease" (page 741).

11. *Effect of Operation on Pain.*—In twenty-nine of the thirty-seven cases in which a cutting operation was resorted to, in sixteen or 57.77 per cent the pain was relieved by the operation; in two or 6.90 per cent the pain was partially relieved; in two or 6.90 per cent the pain was not relieved; in one or 3.45 per cent there was no pain to be relieved; in eight or 27.59 per cent no information could be gained regarding relief from pain; and in two of the cases in which no cutting operation was resorted to, relief from pain was brought about by the application of the terchloride of antimony. It would appear from the above figures that the operation should be resorted to for the relief of pain; and in this class of growth some relief seems to have been gained by the use of a local caustic, which is the reverse of the results in scirrhous carcinoma.

12. *Rate of Growth after Removal.*—Of the twenty-nine cases in which the cutting operation was resorted to, in thirteen or 44.83 per cent the recurring neoplasm grew more rapidly than the primary; in two or 6.90 per cent there has up to date been no return of the growth; in fourteen or 48.27 per cent no information could be gained as to the return of the growth. Mr. Paget speaks of some cases extending over a large number of years, but these cases are rare. The rate of progress after removal is different in different parts of the body. In the tongue it is most malignant; in the scrotum and extremities least so.

13. *Average Period in Months between First Appearance and Operation.*—Of the thirty-seven cases in twenty-six cases the average interval between inception and operation was 20.92 months, the shortest interval being three months, the longest one hundred and fifty-six months. In one case (XVII) the patient stated that he had the disease forty years; in this case the disease was probably a benign wart for a number of years.

14. *Average Interval between First Removal and Death.*—Of the ten fatal cases in the table the average interval between removal and death was five months, the shortest interval being one and the longest nine months. This paragraph must be studied in connection with Nos. 15 and 16.

15. *Average Duration of the Non-fatal Cases.*—In the eighteen non-fatal cases the average duration was over fifty-four months, the shortest interval being eight and the longest one hundred and seventy-eight months, which as yet do not come up to some extraordinary cases cited. The case of over forty years' standing is excluded from the calculation, but may be found in the tables. When the full history of each case is concluded there is still a possibility that the duration of the disease may have equaled in some instances the remarkable ones now on record.

16. *Average Duration of Fatal Cases.*—In the fifteen fatal cases the average duration in thirteen was 29.23 months, the shortest being five and the longest one hundred and fifty-four months, and this is much below Mr. Paget's conclusions: "The average duration among fourteen patients in whom it commenced below forty-five years of age was thirty-nine months; that among seventeen in whom it commenced later was 45.50 months." In the seven fatal cases in our table which occurred before forty-five years of age the average duration of life was only 14.71 months, while in the cases after forty-five it was thirty-nine months.

17. *Average Duration of Fatal and Non-fatal Cases to Date, January, 1879.*—The average duration of the fatal cases and of the non-fatal to date (January, 1879) is, of the thirty-one cases of which we have complete records, 44.03 months. While the average duration is comparatively less for all the cases together, if we separate those below forty-five from those above it it will be found that in the former the average was only 28.70, while above forty-five it was 51.33 months. This average will of course constantly improve until all the cases are dead.

18. *Does the History of the Fatal Cases operated on show that they live on an average longer than Similar Cases not operated on?*—This is impossible to decide from our statistics, for in all of the thirty-seven cases but seven an extensive cutting operation was done. Of these latter four had imperfect histories. In one a partial operation was done, and in the remaining two none was attempted.

19. *Has any Relation been shown between Sarcoma and Carcinoma in these Cases?*—An important deduction may be drawn from the microscopical examinations found annexed to the cases. In no case was sarcoma seen to undergo conversion into a carcinoma or be in any way associated with it. The converse was also true. As truly as the carcinoma is an epithelial production, and the sarcoma allied to the connective-substance group, and as truly as these normal tissues keep asunder from one another in health, so also do they in disease. Carcinoma is almost always associated with inflammatory deposits within the area of its extension, and takes its origin from preëxisting epithelial elements, so that they may be found incorporated in it; as, for example, in the breast, where it may sometimes be seen that there is a gradual change from the secreting tubular-gland tissue to the solid-branching cylinders of which scirrhus is made. How far we have a right to call such growth adeno-carcinoma is doubtful, because we do not know whether the gland tissue is a new or old formation. The essential difference between inflammatory deposit and sarcoma needs to be more thoroughly insisted on.

20. *Relation between the Variety of Carcinoma and the Site.*—Some important clinical facts may be derived from these statistics, confirming previous ideas. The site determines the kind of disease. Given cancer of the breast, and it will almost certainly be scirrhus. Given cancer of the lip, and it will almost certainly be epithelioma. Given cancer of the eyelid, and it will almost certainly be rodent ulcer. Of the liver, it will almost certainly be encephaloid.

The cases of colloid, encephaloid, and cauliflower growths are too few to serve as a basis for comparison. As given in full in the register of cases, and in the tabular form, they exhibit the chief points of interest. No general conclusions are given which apply to all cases of cancer, and there is no advantage in thus classifying them together. Their clinical characters are as different as the microscopical, and each group should be studied separately.

Boldo.—Boldo acts as a stimulant to digestion, and exerts a marked influence upon the liver; this property residing in both the leaves and young stems. It is said that the first knowledge of its virtues was obtained through its action on a flock of sheep suffering from a disease of the liver, and which had been shut up in an inclosure in which the gaps had been recently repaired with boldo twigs. The sheep ate the twigs and leaves, and are said to have recovered their health very rapidly, after passing large quantities of the "fluke-worm," or gourd-worm, which produce the so-called liver-disease.—*New Remedies.*